

**Method and System for Reducing Gray Scale Discontinuities in Contrast
Enhancing Screens Affected by Ambient Light**

ABSTRACT

A method and system for reducing a gray scale discontinuity between pixel locations in a blackened state on a contrast enhancing screen and pixel locations in a gradual shading region of an image displayed by a projector on the contrast enhancing screen. The discontinuity is caused by ambient light. The method comprises measuring an intensity of the ambient light, comparing the measured ambient light intensity to an intensity of light projected by the projector onto the gradual shading region, and generating apparent gray scale levels for the pixels to be displayed in the pixel locations in the gradual shading region based on the comparison.